

March 2007
FACT SHEET
Cameron Trading Post
NPDES Permit No. NN0021610

(Note: Effective December 2005, the National Pollutant Discharge Elimination System (NPDES) permit number for this facility had been changed from AZ0021610 to NN0021610. The two-letter prefix of the permit number is being replaced with NN for its state code to provide for more efficient data management. The new NN prefix will be used in the EPA's database for all NPDES permits in the Navajo Nation.)

I. Introduction

On June 18, 2001, Cameron Trading Post was issued an NPDES Permit (AZ0021610) for its wastewater treatment facility. The permit became effective on June 21, 2001, and expired at midnight June 22, 2006. The permittee applied for reissuance on May 5, 2006. The facility is on private land surrounded by the Navajo Nation and therefore is not under the jurisdiction of the Indian Tribe.

Applicant address: Cameron Trading Post
P.O. Box 339
Cameron, Arizona 86020

Facility contact: Mike Davis
(800) 338-7385

II. Background

The Cameron Trading Post wastewater treatment facility is located in Cameron, on private land surrounded by the Navajo Nation reservation in Coconino County, Arizona, at latitude 35° 52' 37.8" North and longitude 111° 25' 01.4" West (Township 29N, Range 9E, Section 22).

Based on information provided in the May 2006 permit renewal application, the facility serves a full-time population equivalent of 600 and has a design flow capacity of 0.066 MGD. The average daily flow rate was 0.035 MGD in 2005, no average flow data was provided for 2006 or 2004. The maximum daily flow rate was 0.048 MGD for 2005. A lower flow capacity basis of 0.054 MGD was used in determining the permit limits in the previous permit and is being used in the proposed permit, as the reported average flow rate and maximum flow rate were significantly lower than the design flow capacity.

The treatment facility, which receives only domestic sewage, includes: dual train activated sludge aeration tanks, three (3) clarifiers; two (2) sludge holding tanks; three (3) sludge drying beds and two (2) drying beds for turning semi-solid to solid sludge; and, six (6) ultraviolet light disinfection units. All or a portion of the effluent undergoes sand filtration prior to discharge. Effluent will be discharged via discharge pipe located approximately one-half mile downstream into the Little Colorado River segment within the Navajo Nation. Any sampling

and monitoring under the proposed permit shall be performed at Outfall No. 1.

The Endangered Species Act (ESA) requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) if their actions could beneficially or adversely affect any threatened or endangered (T or E) species. Due to the continued low quantity and intermittent nature of the discharge, EPA is again making a preliminary determination that effluent released in compliance with this permit will have no effect on any threatened or endangered species that may be present in the area. No requirements specific to the protection of endangered species are proposed in the permit. A copy of the permit and fact sheet is being sent to the USFWS and its Navajo counterpart, the Department of Fish & Wildlife's Navajo Natural Heritage Program (NHP) for review during the public comment period. EPA is awaiting a response to its request for updated T or E species information from the Navajo NHP sent on October 27, 2006. EPA has followed up with a information request to USFWS on March 12, 2007.

III. Basis of Proposed Permit Requirements

The proposed discharge limitations are based on:

- A. Secondary Treatment Regulations contained in 40 CFR Part 133, Sections 133.101 through 133.105, promulgated September 20, 1984, and most recently amended on January 27, 1989.
- B. Approved 1999 Navajo Nation Surface Water Quality Standards ("NNSWQS"); 2004 NNSWQS revisions, promulgated on July 30, 2004. Because the facility discharges to Navajo Nation waters, EPA applied these Navajo Nation regulations using its best professional judgment (BPJ) to develop limits for this facility.

IV. Navajo Nation Water Quality Standards

The Navajo Nation has received Treatment as a State ("TAS") for Sections 106 and 303 of the Clean Water Act ("CWA"). In January 2006, the Navajo Nation received TAS to administer the water quality standards and certification programs under Sections 303 and 401 of the CWA.

CWA Section 106 grant money was used to develop water quality standards and use designations, which must be approved under Section 303 by EPA Region 9. In March 2006, EPA approved the 1999 NNSWQS that were promulgated on November 9, 1999 and submitted along with the TAS application under CWA Section 303. A revision to the NNSWQS was approved by the Navajo Nation Council on July 30, 2004. The approved 1999 Navajo Nation water quality standards and 2004 revisions will be used on a best professional judgment ("BPJ") basis for purposes of developing water quality based effluent limitations.

V. Designated Uses of the Receiving Water

The designated uses of the receiving waters (Little Colorado River), as defined by the Navajo Nation's water quality standards, are domestic water supply, primary human contact, secondary human contact, ephemeral warm water habitat, and livestock and wildlife watering (p. 18).

VI. Determination of Effluent Limitations, Monitoring, and Reporting Requirements

A. Flow Rates

Under the proposed permit, there are no flow limits but the flow must be monitored and reported. The monitoring frequency is once per month, same as the previous permit.

B. Five-Day Biochemical Oxygen Demand (BOD₅)

Under the proposed permit, the discharge shall not exceed a weekly average of 45 mg/l and monthly average of 30 mg/l BOD₅, and shall achieve no less than a monthly average rate of 85% removal. These limits are required under 40 CFR Section 133.102(a).

Under 40 CFR Section 122.45(f), mass limits are required for BOD₅. Based upon the design flow of 0.054 MGD, the mass limits for BOD₅ are based on the following calculations:

Monthly Average

$$\frac{0.054 \text{ MG}}{\text{day}} \times \frac{30 \text{ mg}}{\text{l}} \times \frac{8.345 \text{ lb/MG}}{1 \text{ mg/l}} \times \frac{0.45 \text{ kg}}{\text{lb}} = 6.08 \text{ kg/day}$$

Weekly Average

$$\frac{0.054 \text{ MG}}{\text{day}} \times \frac{45 \text{ mg}}{\text{l}} \times \frac{8.345 \text{ lb/MG}}{1 \text{ mg/l}} \times \frac{0.45 \text{ kg}}{\text{lb}} = 9.125 \text{ kg/day}$$

Daily Maximum

$$\frac{0.054 \text{ MG}}{\text{day}} \times \frac{90 \text{ mg}}{\text{l}} \times \frac{8.345 \text{ lb/MG}}{1 \text{ mg/l}} \times \frac{0.45 \text{ kg}}{\text{lb}} = 18.25 \text{ kg/day}$$

The monitoring frequency is once per month. These limits are consistent with those in the previous permit.

C. Total Suspended Solids (TSS)

Under the proposed permit, the discharge shall not exceed a weekly average of 45 mg/l and a monthly average of 30 mg/l TSS, and shall achieve no less than a monthly average rate of 85% removal. These limitations (Alternative State Requirements) are consistent with 40 CFR Sections 133.101(f), 133.102(b) and 133.103(c). Mass limit requirements in accordance with 40 CFR 122.45(f) have also been set in the proposed permit. Mass limits are based upon the same calculation shown above for BOD₅. The weekly average is 9.125 kg/day and the monthly average is 6.08 kg/day. The daily maximum is 18.25 kg/day. The monitoring frequency is once per month. These limits are consistent with those in the previous permit.

D. Determination of Effluent Limitation for *Escherichia coli* (*E. coli*)

In the proposed permit, the monthly geometric mean of *E. coli* bacteria shall not exceed 126/100 ml and 235/100 ml as a single sample maximum. These limits are based on the NNSWQS for domestic water supply and primary human contact (p. 26). The previous permit utilized fecal coliform bacteria (FCB) values but the amended NNSWQS replaced FCB with *E. coli*. The monitoring frequency is once/month.

E. Total Residual Chlorine (TRC)

If chlorination is used, the discharge shall not exceed 5 µg/l as a monthly average and 11.0 µg/l as a single sample maximum, based on the NNSWQS for aquatic habitat, wildlife and livestock (p. 30). The monthly average limit is an addition whereas the maximum limit is identical to that in the previous permit. The monitoring frequency is once per week.

F. Total Dissolved Solids (TDS)

The regulations at 40 CFR 122.44(i) allow requirements for monitoring as determined to be necessary. The TDS monitoring requirement replaces the requirement for settleable solids in the previous permit. The monitoring frequency is once/quarter.

G. Total Ammonia Nitrogen (NH₃-N)

The proposed permit establishes a monitoring and reporting requirement for total ammonia nitrogen, which includes the ammonium ion (NH₄⁺) and free ammonia (NH₃). The monitoring frequency is once per quarter. If analytical results for the first four quarters reveal ammonia levels are below EPA's National Water Quality Criteria for ammonia, the monitoring frequency will decrease to once per year. The regulations at 40 CFR Part 122.44(i) allow requirements for monitoring as determined to be necessary. The criteria for ammonia are pH and temperature dependent.

H. pH

The proposed permit requires that effluent pH not fall below 6.5 or above 9.0 standard pH units, identical to those in the previous permit. These are consistent with the Navajo Nation water quality standards. The monitoring frequency is once per week.

I. Temperature

The proposed permit establishes a monitoring requirement for temperature, to be taken concurrently with measurements for pH and ammonia, as ammonia toxicity is pH and temperature dependent. The monitoring frequency is once/quarter.

J. Priority Pollutant Scan

The proposed permit establishes an annual monitoring requirement for priority pollutants. No limit is set at this time. Should the results of the first test reveal levels below EPA's National Water Quality Criteria for priority pollutants and ammonia, monitoring will no longer be required.

VII. Reporting

The proposed permit requires discharge data obtained during the previous three months to be summarized on monthly DMR forms and reported quarterly. If there is no discharge for the month, report "C" in the No Discharge box on the DMR form for that month. These reports are due January 28, April 28, July 28, and October 28 of each year. Signed copies of these, and all other reports required herein, shall be submitted to the EPA Regional Administrator.

VIII. General Standards

The proposed permit sets general standards that are narrative water quality standards contained in the Navajo Nation Water Quality Standards, Section 203. These general standards are set forth in Section B. General Discharge Specifications of the permit.

IX. Permit Reopener

At this time, there is no reasonable potential to establish any other water quality-based limits. Should any monitoring indicate that the discharge causes, has the reasonable potential to cause, or contributes to excursion above a water quality criteria, the permit may be reopened for the imposition of water quality-based limits and/or whole effluent toxicity limits. The proposed permit may be modified, in accordance with the requirements set forth at 40 CFR 122.44 and 124.14, to include appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new Tribal water quality standards.

X. Biosolids Requirements

The permittee shall submit a report 60 days prior to disposal of biosolids. The report shall discuss the quantity of biosolids produced, the treatment applied to biosolids including process parameters, disposal methods, and, if land applied, analyses for Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Zinc, and Selenium, and organic-N, ammonium-N, and nitrate-N, all expressed in mg/kg biosolids on a 100% dry weight basis. The permittee shall comply with all standards for biosolids use and disposal at Section 405(d) of the CWA, and 40 CFR Parts 257, 258 and 503.

XI. Threatened and Endangered Species and Critical Habitat

A. Background:

Section 7 of the Endangered Species Act (ESA) of 1973 requires Federal agencies such as EPA to ensure, in consultation with the U.S. Fish and Wildlife Service (USFWS), that any actions authorized, funded or carried out by the Agency are

not likely to jeopardize the continued existence of any Federally-listed threatened or endangered (T or E) species or adversely modify or destroy critical habitat of such species.

Since the issuance of NPDES permits by EPA is a Federal action, consideration of a permitted discharge and its effect on any listed species is appropriate. The proposed NPDES permit authorizes the discharge of municipal waste into the Little Colorado River, a water of the United States. The proposed permit contains provisions for monitoring conventional, toxic chemicals, and nonconventional pollutants in compliance with the Navajo Nation Surface Water Quality standards, to ensure an appropriate level of quality of water discharged by the facility. Re-opener clauses have been included should new information become available to indicate that the requirements of the permit need to be changed.

During the previous permitting in 2001, in response to EPA's request for a listing of species information, the Arizona Ecological Services Field Office of the USFWS had identified seventeen (17) listed, proposed or candidate T or E species that may potentially occur in Coconino County where the treatment facility is located. The listed species are as follows:

Names (common and scientific)	Status
Brady pincushion cactus (<i>Pediocactus bradyi</i>)	E
Navajo sedge (<i>Carex specuicola</i>)	T
San Francisco Peaks grounzel (<i>Senecio franciscanus</i>)	T
Sentry milk vetch (<i>astragalus cremnophylax</i> var. <i>cremnophylax</i>)	E
Siler pincushion cactus (<i>Pediocactus sileri</i>)	T
Welshs milkweed (<i>Asclepias welshii</i>)	T
Kanab ambersnail (<i>Oxyloma haydeni kanabensis</i>)	E
Black-footed ferret (<i>Mustela nigripes</i>)	E
Humpback chub (<i>Gila cypha</i>)	E
Little Colorado spinedace (<i>Lepidomeda vittata</i>)	T
Razorback sucker (<i>Xyrauchen texanus</i>)	E
Bald eagle (<i>Haliaeetus leucocephalus</i>)	T
California Condor (<i>Gymnogyps californianus</i>)	E
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	T
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	E
Chiricahua leopard frog (<i>Rana chichahuensis</i>)	Proposed
Fickeisen pincushion cactus (<i>Pediocactus peeblesianus fickeiseniae</i>)	Candidate

From the USFWS's Threatened and Endangered Species System database as of May 17, 2006, EPA found a listing of twenty-two (22) federally-listed T or E species in Coconino County. The list is herein attached as Appendix A.

The USFWS has deferred all of its survey and information collection in the Navajo Nation to the Navajo Nation's Department of Fish & Wildlife – Natural

Heritage Program (NHP). EPA has requested an updated listing of species information from the Navajo Nation NHP for the specific project in October 2006 and followed up with another information request to the of the USFWS in March 2007. EPA is awaiting a response to its requests.

B. EPA's Finding:

This permit authorizes the discharge of treated wastewater in conformance with the federal secondary treatment regulations and the Navajo Nation Surface Water Quality Standards. These standards are applied in the permit both as numeric and narrative limits. Therefore, since the standards themselves are designed to protect aquatic species, including threatened and endangered species, any discharge in compliance with these standards should not adversely impact any threatened and endangered species. Furthermore, the water course into which the effluent is discharged is an ephemeral river bed, which without the discharge of effluent would be dry. For the majority of the year, the discharge never reaches a perennial stream capable of supporting aquatic habitat.

While EPA believes that, due to the low quantity and volume of the discharge, effluent released in compliance with this permit will have no effect on any federally-listed threatened or endangered species or its critical habitat that may be present in the area. The treatment facility has been in existence for some time, and no new construction or modifications will be made to it due to the proposed NPDES permit. EPA is proposing to issue the permit (renewal) and no requirements specific to the protection of endangered species are proposed in the permit. EPA may decide that changes to the permit may be warranted based on receipt of new information.

EPA is requesting comments from the USFWS as well as the public and will consider their comments in making the final permit decision. EPA will initiate consultation should new information reveal impacts not previously considered, should the activities be modified in a manner beyond the scope of the original opinion of the FWS, or should the activities affect a newly-listed species. A re-opener clause has been included should new information become available to indicate that the requirements of the permit need to be changed.

XII. Information and Copying

The Administrative Record, which contains the draft NPDES permit, the fact sheet, comments received, and other relevant documents, is available for review and may be obtained by calling or writing to the above address.

All comments or objections received within thirty (30) days from the date of the public notice will be retained and considered in the formulation of the final determination regarding the permit issuance.

XIII. Administrative Information -- Public Notice, Public Comments, and Requests for Public Hearings

In accordance with 40 CFR 124.10, public notice shall be given by the U.S. EPA Director that a draft NPDES permit has been prepared by mailing a copy of the notice to the permit applicant and other Federal and State agencies, and through publication of a notice in a daily or weekly newspaper within the area affected by the facility. The public notice shall allow at least 30 days for public comment on the draft permit.

In accordance with 40 CFR 124.11 and 12, during the public comment period, any interested person may submit written comments on the draft permit, and may request a public hearing if no hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. In accordance with 40 CFR 124.13, all persons must raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position within thirty (30) days from the date of the public notice. Comments may be received either in person or mailed to:

U.S. Environmental Protection Agency, Region IX
CWA Standards and Permits Office (WTR-5)
Attn: Linh Tran
75 Hawthorne Street
San Francisco, CA 94105
Telephone: (415) 972-3511

Interested persons may obtain further information, including copies of the draft permit, fact sheet/statement of basis, and the permit application, by contacting Linh Tran (WTR-5) at the U.S. EPA address, above. Copies of the administrative record (other than those which U.S. EPA maintains as confidential) are available for public inspection between 8:00 a.m. and 4:30 p.m., Monday through Friday (excluding federal holidays).

In accordance with 40 CFR 124.12, the U.S. EPA Director shall hold a public hearing when she finds, on the basis of requests, a significant degree of public interest in the draft permit. The Director may also hold a public hearing when, for instance, such a hearing might clarify one or more issues involved in the permit decision. Public notice of such hearing shall be given as specified in 40 CFR 124.10.